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ABSTRACT

A study examined the influence of physical attractiveness and trait argumentativeness as predictors of responses to an argumentative situation. Subjects, 152 college students identified as either high or low in trait argumentativeness, were randomly assigned to one of two treatment conditions: attractive or unattractive anticipated adversary. A cover story about an upcoming debate with students from another college was used to generate the data. Results indicated that the physical attractiveness of the intended adversary did not significantly affect either resultant motivation to argue or situation perception, but that the general motivational trait of argumentativeness strongly did. The findings suggest that physical attractiveness is less important in argument than in nonconflict situations, or is simply obscured by the power of the trait predisposition to argumentativeness. (JL)

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THE IMPACT OF PHYSICAL ATTRACTIVENESS AND TRAIT ARGUMENTATIVENESS AS PREDICTORS OF RESPONSES TO AN ARGUMENTATIVE SITUATION

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ABSTRACT

This study examined the influence of physical attractiveness and trait argumentativeness as predictors of responses to an argumentative situation. One hundred fifty-two subjects identified as either high or low in trait argumentativeness anticipated that they would engage in an argument with either a physically attractive or unattractive adversary. The impact of the two independent factors of physical attractiveness and trait argumentativeness were examined for their influence on several indices and situational determinants of resultant motivation to argue.

Results indicated that the physical attractiveness of the intended adversary did not differentially impact on any of the indices or situational perceptions of resultant motivation to argue, but that the general motivational trait of argumentativeness strongly did. The study demonstrates the potency of this trait in influencing perceptions of argumentative situations, uncovers another potential boundary of the physical attractiveness variable, and suggests that situational factors, such as the physical attractiveness of an adversary, may impact most on individual's who are moderate in the trait predisposition.

THE IMPACT OF PHYSICAL ATTRACTIVENESS AND TRAIT ARGUMENTATIVENESS AS PREDICTORS OF RESPONSES TO AN ARGUMENTATIVE SITUATION

Infante and Rancer (1982) developed a conceptualization of Argumentativeness which includes state as well as trait components in predicting argumentativeness in a particular situation. Argumentativeness was defined as a generally stable trait which predisposes an individual in communication situations to advocate positions on controversial issues and to attack verbally the positions which other people take on these issues (Infante & Rancer, 1982). In developing this conceptualization, the authors' differentiate this construct conceptually and empirically from verbal aggressiveness (attacking a person's self-concept instead of an issue) and from communication apprehension (anxiety about real or anticipated communication with others, McCroskey, 1977).

Argumentativeness was conceived in terms of an approach-avoidance or excitation-inhibition conflict. The highly argumentative individual experiences favorable excitement and has a strong tendency to approach arguments, while feeling little inhibition to argue nor tendencies to avoid arguments. The individual low in argumentativeness is opposite; i.e., low approach, little favorable excitement, strong inhibition to argue and avoidance tendencies. According to the Infante and Rancer conceptualization, an individual's general trait to be argumentative, ARG_{gt}, is viewed as an interaction of the tendency to appraoch arguments, ARG_{ap}, and the tendency to avoid arguments, ARG_{av}. The tendency to avoid arguments is viewed as a debilitating factor, weakening the tendency to approach arguments by the anxiety associated with arguing. Infante and Rancer express this general tendency to be argumentative as:

$$ARG_{gt} = ARG_{ap} - ARG_{av}$$

A scale was developed to measure this general tendency to be argumentative (Infante & Rancer, 1982). The Argumentativeness Scale has demonstrated reliability and validity.

The construct of argumentativeness has been examined further in a series of recent studies. Infante (1981) investigated dimensions of communication behavior in arguments which discriminate individuals who are high or low in trait argumentativeness. Results of this study revealed that the communication behavior of high and low argumentatives varied along seven dimensions of communication behavior. High trait argumentative individuals were found to be: more inflexible; more interested in the argument; perceived as more verbose; more willing to present and refute the other's position in an argumentative discussion; perceived as more expert in communication; perceived as more dynamic in their communication behavior; and displayed greater argumentative skill.

Infante (1982) also investigated characteristics of the argumentative student in the communication classroom. The study revealed that individuals classified as high in trait argumentativeness received more high school training in argumentation; reported a higher college grade point average; were born earlier; preferred smaller college classes; and were more liberal than individuals classified as low in the trait predisposition. Satisfaction with interpersonal relations, and ability to relate to peers, did not discriminate among high, moderate and low argumentatives. Infante suggests that the data support the assumption that argumentativeness is a desirable communication trait.

The conceptualization of Argumentativeness offered by Infante and Rancer (1982) suggests that situational variance in argumentative behavior is indicative of the presence of a state component of argumentativeness. This state component consists of a person's

feelings and beliefs about a particular argumentative situation which tends to influence the person's argumentative behavior in that situation. This state component modifies what would be predicted from knowledge of a person's trait alone. Based on Atkinson's theory of achievement motivation (1957,1966) Infante and Rancer (1982) posited four state components or situational determinants of resultant motivation to argue: P_s, the individual's perception of the probability of success in the particular argument (success is viewed subjectively and could mean winning the argument, persuading others, or enhancing one's credibility); P_f, the perceived probability of failure; I_s, the perception of importance of success in the particular argumentative situation; and I_f, the perceived importance of failure in the argument.

The complete model of Argumentativeness presented by Infante and Rancer (1982) suggests that an individual's resultant motivation for being argumentative in a particular situation, RM_{arg}, is an interaction of the tendency to approach the particular argument and the tendency to avoid that particular argument. They view an individual's tendency to approach a particular argument, T_{ap}, as a multiplicative function of the general trait to approach arguments, and the perceived probability of success and the perceived importance of success for the particular argument ($ARG_{ap} \times P_s \times I_s$). Similarly, the individual's tendency to avoid a particular argument, Tav, is viewed as a multiplicative function of the general trait to avoid arguments, and the perceived probability of failure and importance of failure for the particular argument ($ARG_{av} \times P_f \times I_f$). Hence, an individual's resultant motivation for being argumentative in a particular situation is expressed as: $RM_{arg} = T_{ap} - T_{av}$.

In an interpersonal communication transaction, such as when two individuals are arguing about a controversial issue, there are numerous situational factors that can impact on an individual's probability and importance of success and failure perceptions of that situation, and on their resultant motivation to argue. The salient situational factors that surface in communicative transactions which are essentially disputatious in nature may be placed into five broad categories:

1. Perceptions of self in argumentative situations (how motivated is the individual to approach or avoid arguments; how much does the individual like or dislike arguing).

2. Attributes and characteristics of the adversary in the argumentative transaction (these attributes and characteristics can range from biosocial attributes such as age, sex, race, physical appearance, etc., to psychosocial characteristics such as temperament, personality, demeanor, mood, etc).

3. Characteristics of what the individuals are arguing about (these constitute topical concerns such as the topic of the argument, the ego-involvement of the individuals in the topic of the argument, the saliency of the argument to the individuals involved, etc.).

4. Characteristics of the argumentative situation in general (these are contextual concerns of the argumentative situation which can include aspects of the physical environment such as where the argument takes place, as well as temporal issues).

5. Relational concerns (this category addresses the relationship between the participants involved in the argumentative transaction, and may include such issues as relational closeness, status, dominance, and power differences between the participants in the argument).

The present investigation attempted to address elements of the first and second categories which comprise the broad situational factors outlined above that influence argumentative responses and argumentative behavior. This investigation focused attention on a few key biosocial and psychosocial attributes of the individuals involved in an argument. As the construct of Argumentativeness continues to emerge as an important area of research and study in interpersonal communication, research programs designed to explore the process of informal argument will address elements of the third, fourth and fifth

categories, e.g., attributes of the topic of the argument, or contextual concerns of the argument. These categories were controlled for in the present investigation.

The interpersonal variable which was examined for its' impact on situational determinants and resultant motivation to argue was derived from the first broad category outlined above, the individual's general tendency to be argumentative, or trait argumentativeness (Infante & Rancer, 1982). The situational variable derived from the second category was the degree of physical attractiveness of the adversary in an informal argumentative discussion. This variable was examined because of the impact it has on interpersonal communication, interpersonal attraction, persuasion and other forms of social influence. Physical attractiveness has been investigated in a host of social contexts (helping behavior, jury deliberation, persuasion, social responsiveness to name a few) but has not been investigated in a most frequent form of social interaction, informal argument.

The research conducted was designed to answer the general research question: What impact will physical attractiveness and trait argumentativeness have on individuals resultant motivation to argue in a specific situation, and on an individual's situational perceptions?

The pervasive influence of physical attractiveness has been observed in many interpersonal, small group and public communication contexts. Berscheid and Walster (1974) and Adams (1977) present extensive reviews of this literature. The potency of the physical attractiveness variable has been demonstrated in research on source image, source credibility, person perception and persuasion.

The advantages that physically attractive individuals enjoy appear to be broad and well documented in empirical research. When examining the major research conclusions concerning this variable we find that physically attractive people are more persuasive (Chaiken, 1979; Horai, Naccari & Fatoullah, 1974; Snyder & Rothbart, 1971; Mills & Aronson, 1965), rated higher in credibility (Widgery & Webster, 1969; Widgery, 1974), and are believed to be happier (Dermer & Thiel, 1975) than less attractive individuals. Dion, Berscheid and Walster (1972) found that a physical attractiveness stereotype exists, and that the assumption of

"what is beautiful is good" may be very much in operation until it is contradicted by alternative behavioral information. Miller (1970) studying the role of physical attractiveness in impression formation, found a consistent pattern emerged with unattractive individuals being associated with the negative or undesirable pole of adjectives (e.g., careful-careless, unsure-sure, confident-unconfident). Physically attractive persons were judged significantly more postively. Miller concluded that physical attractiveness "is a potentially strong determinant of first impressions" (p. 242).

Jackson and Huston (1975) in a series of studies investigating physical attractiveness and assertiveness, found that attractive females were more assertive than unattractive females. Goldman and Lewis (1977) found a relationship between physical attractiveness and social skillfulness with the attractive females being viewed as more socially skillful in telephone conversations than the less attractive females. Dion and Stein (1978) investigated physical attractiveness and interpersonal influence and found that with regard to influencing a peer's behavior, attractive "manipulators" were particularly successful at influencing the behavior of opposite sex peers. Chaiken's (1979) field investigation on the relationship between physical attractiveness and persuasion generally supported the previous research findings. Subjects approached in a field setting expressed significantly greater agreement on both a verbal and behavioral measure with attractive versus unattractive communicators.

The effects of the physical attractiveness stereotype appear to be most potent in the initial stages of social interaction. Berscheid and Walster (1974) suggest that even if the physical attractiveness stereotype is potent only in the initial stages of interaction, it nevertheless has a significant impact, since many of a person's communicative interactions are of a one-time or a few-time only nature. In addition, Berscheid and Walster (1974) also establish the importance of first impressions in many communication situations.

Clearly, physical attractiveness is a potent variable in many interpersonal communication contexts. When the interpersonal communication is argumentative in nature, the physical appearance cues

should remain potent. In an argumentative situtation there is an air of competition, someone is expected to win the argument. The demonstrated "what is beautiful is good" stereotype suggests that individual's who are perceived as physically attractive are also perceived as possessing a host of other favorable, nonphysical attributes and traits. In an interpersonal argumentative situation, including those situations where one may expect evaluation of the argument by a third party (or parties), the physical characteristics of an adversary should impact directly on the individual. In the case of the individual arguing with a physically adversary, one might expect to witness a "halo" effect due to the adversary's physical attractiveness. As demonstrated by previous research (Goldman & Lewis, 1977) attractive indivudual's may actually possess enhanced communication skills, or at minimum, may be perceived as being more effective in communicative transactions. This effect should increase an individual's perception of the probability that the attractive adversary will succeed in the argumentative situation, and decrease the perceived probability for his or her own success in the argument.

An individual may also recognize other direct effects of the adversary's beauty. The individual may realize that the adversary's physical beauty will have an impact on observers who might evaluate the outcome of the argument. An individual may believe that the observer(s) will make more favorable trait attributions when the adversary is physically attractive. These speculations are, of course, derived from the "what is beautiful is good" thesis. These consequences of an adversary's beauty could influence an individual's probability and importance perceptions of success and failure in an argumentative situation, as well as impact on his or her overall resultant motivation to argue in that situation. This speculation was tested in this investigation.

Specifically, the following hypotheses were tested in this study:

H1: When an adversary is physically attractive resultant motivation to argue will be lower than when the adversary

is physically unattractive; and resultant motivation to argue will be higher for high trait argumentative than low trait argumentative individuals.

Resultant motivation to argue was operationalized by four indices: attitude toward the argumentative situation, intended effort to succeed, the quantity of intended arguments, and the degree of disappointment when the argument is cancelled.

H2: When an adversary is physically attractive the probability of success and importance of success will be lower and the probability of failure and importance of failure will be higher than when the adversary is physically unattractive. Higher probability of success, higher importance of success, lower probability of failure, and higher importance of failure perceptions will be observed for high trait argumentative than low trait argumentative individuals.

Method

Subjects

Subjects were drawn from thirty sections of lower division communication courses at a large midwestern university. Subjects were selected on the basis of their scores on the Argumentativeness Scale (Infante & Rancer, 1982) which was administered to all basic level communication courses. A total of 152 subjects participated in this investigation. This sample size was based upon the recommendations offered by Cohen (1977) for a medium effect size (.25) for main and interaction effects, an alpha level of .05, and a power level of .80. There were 80 males and 72 females in the sample. All 152 subjects received a monetary compensation of two dollars for their participation in the study.

Procedures

Method of Pretesting Subjects for Trait Argumentativeness

During the first three weeks of the academic quarter, all undergraduates students enrolled in introductory communication courses at a large midwestern university were administered the Argumentativeness Scale (Infante & Rancer,1982). Subjects were also pretested for their attitudes toward the topic of the argumentative discussion. This was necessary to eliminate the possibility that

subjects would have to argue counterattitudinally. Subjects who scored between -1 and -25 (n=79) on the Argumentativeness Scale were considered low in trait argumentativeness, while subjects who scored between +10 and +40 (n=73) were considered high in trait argumentativeness. Following this blocking, subjects were randomly assigned to one of the two possible treatment conditions: attractive and unattractive adversary.

Method of Selecting and Testing Stimulus Photos for the Manipulation of Physical Attractiveness

A methodological weakness in many previous physical attractiveness studies was the common procedure of selecting only two stimulus persons, one attractive and one unattractive, in order to manipulate the variable of physical attractiveness. In addition, many previous studies on attractiveness selected only stimulus persons who represent extremes on an attractiveness continuum. In order to avoid these potential limitations, as well as to enhance the believability of the cover story employed, a number of attractive and less attractive stimulus persons were chosen. The one criteria or restriction employed was that the stimulus persons should not solely represent the extremes of an attractiveness continuum.

A student photo-directory of a small private midwestern college was used for selecting the stimulus photos. All pictures employed were in black and white, and were taken from the neck up. Only female stimulus photos were used in this study. This limitation was set following the dictates of most previous research manipulating the physical attractiveness variable. The present investigation followed those previous research lines. In addition, there appears to be less variance between individuals when assessing the attractiveness of females as opposed to males.

Five judges were asked to select approximately 50 pictures of females believed to be attractive or less attractive from the student

photo-directory. The five judges then compared their choices and the pictures with the highest rate of agreement between the judges were selected. This resulted in 17 pictures of females believed to be attractive, and 15 pictures of females believed to be less attractive. Each of these 32 pictures was then rated by a sample of males and females drawn from the same population as the sample used in the actual experiment (n=61). These 61 subjects evaluated each picture in random order and rated each picture on a 7-point scale ranging from extremely attractive (7) to extremely unattractive (1). The top four pictures rated attractive by the 61 subjects were selected for the attractive adversary condition, and the bottom four pictures rated unattractive by the subjects were selected for the unattractive adversary condition.[1] The four extreme pictures were selected for each condition in the present study. Results of dependent t-tests indicated that none of the four attractive stimulus photos was rated significantly different from each other in terms of physical attractiveness but differed significantly from each of the four photos selected for the other condition. These findings held true for the four unattractive stimulus photos as well.

Procedures for Conducting the Study

In a study of this nature, as well as in all social science research, experimenter effects and demand characteristics (Orne, 1960; Kelman, 1967) must be minimized. In order to facilitate this, a cover story was devised and presented to the subjects. Subjects were informed that they were selected at random from basic communication courses at the university, and that their participation would help them fulfill part of their research requirement for their respective course. In addition, all subjects were told that their participation would earn them two dollars for about a half hour of their time.

Subjects were informed that the Department of Communication at their university, and one at a small private college nearby were

involved in a joint research project designed to investigate people's perceptions of an argumentative situation, and how people actually perform in that argumentative situation when the people involved represent different educational environments and institutions. Subjects were further informed that the information gathered from the study would be useful in redesigning several communication course offered at both institutions.

Subjects were told that the study would proceed in two parts. In the first part, they would be asked for their perceptions of an argumentative situation. In the second part, they were told that they would be placed into an argumentative situation, and would argue informally with another student over a controversial issue. Subjects were also informed that several undergraduate communication students would be present to observe this argumentative discussion, and would write down a summary of the important and successful points that each participant in the discussion presented in order to determine who was the most successful in persuading the other. Subjects were asked to try and represent themselves well, and to try to persuade the other person to accept their respective position concerning the issue.

Subjects were then "briefed" about their adversary for the argumentative discussion. The subjects were informed that their adversary was picked randomly from introductory communication courses at the small private college nearby, and was randomly assigned to them. An "Information Booklet" was devised and was given to each subject to examine thoroughly and carefully before the administration of the dependent variable questionnaire.

The "Information Booklet" contained the following: a cover page essentially informing the subjects about the "purpose" of the study. This first page contained the cover story that was presented to the subjects. The first page of the booklet also stated that the other college had sent some information about their adversary for the argument which was attached. Finally, the cover sheet of the booklet informed subjects about the topic of the argument. Subjects were informed that they would be discussing and arguing the proposal "that a system of free tuition for all college students enrolled in the State's

university system should be implemented." Subjects were instructed that they would take the "pro" position during the argument, and that their adversary would be assigned the "con" position. The pretest for topic allowed the researchers to select only individuals who espoused the "pro" position, thus controlling for the potential extraneous variable of counterattitudinal advocacy. However, subjects were informed that this assignment was done accordingly because all of them attended a state university and could argue "pro" more credibly, while their intended adversary came from a private college, and would be better able to argue against the proposal. Subjects were further told that their assigned adversary for the argument was pretested, and opposed the proposal under question. All subjects indicated acceptance of this assignment and of the statements made by the experimenters.

The second page of the "Information Booklet" contained a bogus College Student Information Form. Here is where the subject was "introduced" to his or her adversary for the argument. The adversary's name, sex, birthplace, etc. were included on this form.[2] All bogus information presented was identical on each information form. This sheet also contained a picture of the intended adversary which was placed in the upper right-hand corner of the form. The placement of this picture constituted the manipulation of the physical attractiveness variable.

Subjects were also told that this form had been sent by the private college upon request by the experimenters, and that their future adversaries would gather similar information about them during an informal meeting which would occur before the start of the argument, when the adversaries arrived at the university campus. Subjects were told that the small, private and wealthier institution could afford to provide these information forms, while the larger state institution could not afford the time or money to provide the same. All subjects seemed to accept these statements, and no subject indicated suspicion or disbelief.

Through random assignment procedures, subjects anticipated that they would engage in an argument with an attractive or less attractive adversary. They were informed the arguments would take place in

approximately two week's time when "their adversary arrives at this campus." Subjects were told that they would be contacted by telephone during the next few days to inform them of the actual date for the forthcoming argument.

In order to insure that the physical attractiveness variable was made salient to the subjects, at the time each subject received his or her booklet, the experimenter approached each subject individually and offered some "suggestions." The viewing of the stimulus picture was crucial to the effective manipulation of the physical attractiveness variable. Thus, subjects were instructed orally by the experimenter:

"Please take a close look at your partner for the forthcoming argument. It will be necessary that you make every attempt to recognize this person when they get off the bus here at this campus. There may be some confusion the day the students arrive here, since many of them have never been to this large campus before, and recognizing your partner may alleviate some problems. So, please take a good look at this person again. Hopefully you will be able to recognize him or her, and this will really help us out when we try to get the arguments organized that day."

In this fashion, the physical appearance of the adversary was made salient to the subject without creating any suspicion or demand characteristic.

Subjects were not directly informed as to how argumentative they scored so as to avoid setting up possible demand characteristics. Further, subjects were informed by the experimenters not to do anything further regarding the upcoming argument until they were contacted by telephone. That is, they were specifically instructed not to go to the library nor prepare anything for the argument. Subjects were frequently told that we were not interested in prepared statements as is typical in a formal argument (debate), but rather that we were interested in spontaneous discussion which accompanies informal argument. These directives were explicitly presented to the subjects

to keep them from doing any possible preparation for the argument that they anticipated, since unbeknowst to them, the arguments would never take place.

Subjects were told that, among other things, the study was concerned with their perceptions of the argumentative situation. All subjects then received a questionnaire booklet which contained the scales for the measurement of the dependent variables. The four indices of resultant motivation to argue were: attitude toward the argumentative situation, intended argument quantity, intended effort to succeed in the argument and disappointment. Measures of the four situational determinants of argumentativeness were: probability of success, importance of success, probability of failure, and importance of failure. Physical attractiveness was measured as a further manipulation check on the physical attractiveness variable.[3] The Disappointment measure was administered to subjects before they were debriefed and paid, and after the initial data was collected. Additional information requested in the questionnaire was the subject's name, sex, instructor, and telephone number. The phone number was requested in order to lend credence to the cover story employed.

Once the subjects completed the booklet, the experimenters thanked them and told them that they would be called in approximately one week in order to inform them of the exact time and date of the upcoming argument.

After all data was collected from the 152 subjects, a debriefing letter was prepared. The debriefing letter was placed in an envelope with the two dollar monetary payment, and the experimenters returned approximately two weeks later to the classrooms of the subjects'. Subjects were requested to go outside in the hall with the experimenter who then informed them that the arguments had to be cancelled. Subjects were told that the reasons for the cancellation, and their two dollar payment were included in their respective envelopes. Subjects were further told:

"Before I give you this envelope, we would like to get a little more information from you. Please fill out

these four scales. When you are finished, I'll give you your envelope."

A Disappointment measure was created which consisted of four Likert-type scales designed to have subjects indicate how disappointed they were that the argument was cancelled. After the subjects completed the four scales, the experimenter handed the subject their envelope, thanked them, and told them to read the letter carefully. In this fashion all subjects were debriefed, paid, and the experimenters were able to obtain the additional Disappointment measure.

Results

Manipulation Check on Physical Attractiveness

Although it had been previously established that the four attractive stimulus photos were judged significantly more attractive than the four unattractive stimulus photos, a manipulation check was deemed desirable to ensure further that the subjects in the current investigation viewed the two sets of pictures differentially.

Five scale items constituting the physical attraction dimension taken from McCroskey and McCain's (1974) interpersonal attraction scales served as the basis for this manipulation check.

Results indicated that subjects viewed the set of four attractive stimulus photos significantly more attractive than the set of four unattractive stimulus photos (F=205.45, $p < .001$, df=1/148). The mean physical attraction score for the attractive photos was 20.78, while the mean physical attraction score for the unattractive stimulus photos was 17.35. The results underscore the success of the physical attractiveness manipulation.

Reliability of Dependent Measures

The internal consistency of the dependent variables was determined by calculating Cronbach's (1951) coefficient alpha. Obtained reliability coefficients for the dependent variables were as follows: P_s = .87; I_s = .89; P_f =.82; I_f=.93; Attitude toward the argumentative

situation = .91; Effort = .71; Disappointment = .89; and Physical Attraction = .93.

The Influence of Physical Attractiveness and Trait Argumentativeness on the Indices of Resultant Motivation to Argue

The first hypothesis stated that all four indices of resultant motivation to argue would be significantly lower when individuals expected to encounter a physically attractive adversary in the argumentative discussion. Hypothesis 1 further stated that all four indices would be significantly higher for high trait argumentative than low trait argumentative individuals.

The data collected was subjected to two-way analysis of variance for unequal n. Cell means for the four indices of RM_{arg} can be found in Table 1.

Table 1 about here

The respective F-ratio's (df's for all ANOVA's were 1/148) for the physical attractiveness factor all were non-significant: attitude toward the argumentative situation (F=.040), intended argument quantity (F=.003), effort to succeed (F=.314), and disappointment (F=.279). Thus, the first part of Hypothesis 1 was not supported. The physical attractiveness or unattractiveness of the intended adversary in the argumentative discussion did not impact differentially on subject's

resultant motivation to argue.

An examination of the F-ratio's for the trait argumentativeness factor, however, yields very different results. All F-ratio's for the four indices of resultant motivation to argue were significant: attitude toward the argumentative situation ($F=15.600$, $p < .01$), intended argument quantity ($F=3.984$, $p < .05$), effort to succeed ($F=12.349$, $p < .01$), and disappointment ($F=20.155$, $p < .001$). Clearly then, the second part of this hypothesis was supported. Individuals identified as high in trait argumentativeness manifested significantly more favorable attitudes toward the argumentative situation, were significantly higher in the number of intended arguments, indicated significantly more intended effort to succeed in the argument, and were more disappointed when the argument was cancelled.

No significant argumentativeness x attractiveness interaction effects were observed for the attitude toward the argumentative situation index ($F=1.401$), for the number of intended arguments ($F=.380$), or for disappointment ($F=1.245$). However, a significant argumentativeness x attractiveness interaction effect was observed for the intended effort to succeed index ($F=3.725$, $p < .05$). Duncan's Multiple Range Test (1955) was employed to locate the source of the interaction. The Duncan's test revealed that high argumentatives intended to exert more effort to succeed than low argumentatives when presented with an unattractive adversary, and, highly argumentative individuals intended to exert more effort to succeed in the argument when presented with an unattractive adversary than low argumentatives paired with an attractive adversary.

This strong support for the second half of Hypothesis 1 provides considerable support for the conceptualization and measure of Argumentativeness (Infante & Rancer, 1982).

The Influence of Physical Attractiveness and Trait Argumentativeness on the Situational Determinants of Resultant Motivation to Argue.

Hypothesis 2 stated that the situational determinants of the argumentativeness model would also be influenced by the physical attractiveness of the adversary in the argument, and by the trait predisposition of argumentativeness. Specifically, Hypothesis 2 predicted that when expecting to argue with a physically attractive adversary,individual's would report lower probability of success, lower importance of success, higher probability of failure and higher importance of failure perceptions of the argumentative situation.

This second hypothesis predicted further that the situational determinants of the model would be influenced by the trait predisposition of argumentativeness, with high argumentatives reporting significantly higher probability of success, importance of success, lower probability of failure and higher importance of failure perceptions of the argumentative situation than low trait argumentative individuals.

The data collected were again subjected to two-way analysis of variance for unequal n. The dependent variables in these analyses were the four situational determinants of resultant motivation to argue (P_s, I_s, P_f, I_f). Cell means for the four situational determinants can be found in Table 2.

Table 2 about here

Like the previous results, the respective F-ratio's for the physical attractiveness factor all were non-significant: P_s (F=.000), I_s (F=.096), P_f (F=1.075), and I_f (F=.021). Thus, the first part of this

second hypothesis was not supported. The physical attractiveness or unattractiveness of the intended adversary in the argument failed to differentially impact on the four situational perceptions of the particular argument. However, an examination of the F-ratios for the trait argumentativeness factor reveals three of the four F-ratios for the situational determinants of the argument emerged significant: P_s (F =10.785, $p < .01$), I_s (F=6.410, $p < .05$), and I_f (F=4.951, $p < .05$). The only determinant not influenced by trait argumentativeness was the perceived probability of failure (F=2.556, $p > .05$, df=1/148). Thus, with the exception of the probability of failure determinant (although the means were in the predicted direction, High Argumentative P_f=15.46, Low Argumentative P_f=16.59), the second part of Hypothesis 2 was supported. Individual's identified as high in trait argumentativeness manifested significantly higher probability of success, importance of success and importance of failure perceptions of the argument than did low trait argumentative individuals.

No significant argumentativeness x attractiveness interaction effects were observed for the P_s (F=.876), I_s (F=.189), and P_f (F=.251) situational perceptions, however a significant argumentativeness x attractiveness interaction effect did emerge for the I_f situational perception (F=6.761, $p < .05$). Results of the Duncan's Test revealed that subjects in the high argumentative - unattractive adversary condition manifested significantly greater perceived importance of failure perceptions of the argument than did subjects in the low argumentative - unattractive adversary condition; and subjects in the high argumentative - unattractive adversary condition manifested significantly more perceived importance of failure in the argument than subjects in the high argumentative - attractive adversary condition. Thus, for highly argumentative individuals, failure was apparently more important when they opposed an unattractive versus an attractive adversary in the argument.

The relatively strong support for the second half of Hypothesis 2 again yields support for the conceptualization and measure of argumentativeness (Infante & Rancer, 1982), and points out the potency of the argumentative predisposition in communication transactions where

conflict is expected.

DISCUSSION

It was the purpose of this study to examine the influence physical attractiveness and trait argumentativeness have on several responses to an argumentative situation. The physical attractiveness variable has been found to influence and impact on a variety of communicative transactions ranging from helping behaviors to the severity of judgments for a defendant on trial. Physical attractiveness has been demonstrated as influential in enhancing persuasion and judgments of a communicator's credibility. On the basis of previous research it was speculated that the physical attractiveness factor should also have considerable influence in a most frequent form of social and communication interaction which involves conflict, informal argument.

The major findings in this investigation center around the lack of influence physical attractiveness had on the indices and situational determinants of resultant motivation to argue, and the power of the argumentativeness trait factor to do so.

The physical attractiveness of the intended adversary in the argumentative discussion had no significant main effect on any of the four indices or situational determinants of resultant motivation to argue.

Two significant argumentativeness x attractiveness interaction effects did emerge in this study. Individuals in the high argumentative - unattractive adversary condition exhibited significantly greater perceived importance of failure (I_f) in the argument than individuals in the low argumentative - unattractive adversary condition. This result suggests that trait argumentativeness was the over-riding factor operating here. Recall that importance of

failure was found to be significantly greater for high versus low argumentative individuals.

In addition, results indicated that high argumentatives differed significantly in importance of failure perceptions when confronted with an attractive or unattractive adversary. It is here where the physical attractiveness of the adversary had a differentiaal effect on a situational determinant of RM_{arg}. High argumentatives manifested significantly greater importance of failure perceptions when they faced an unattractive adversary. It may be that an ego-defense or a self-esteem explanation is apparent here. When the high argumentative fails to succeed at persuading an attractive adversary, he or she may attribute that failure to the over-riding effect of the beauty of the adversary, not to any inadequacies in themselves. However, when the high argumentative individual fails to succeed at persuading an unattractive adversary, the reasons for failure may be directed at self, e.g., lack of ability, presentational deficiencies, etc. The high argumentative may not expect failure when trying to persuade an unattractive adversary. If they do fail, or if they feel they may fail, importance of failure is greater.

A significant argumentativeness x attractiveness interaction effect also emerged for the Effort to succeed index of resultant motivation to argue. Highly argumentative individuals expecting to argue with an unattractive adversary, indicated more effort to succeed in the argument than low argumentatives paired with an unattractive or attractive adversary. This finding could again lie with the power of the trait argumentativeness predisposition to influence an individual's resultant motivation to argue. It is possible that trait argumentativeness was the primary factor operating in this significant interaction. Due to their argumentative predisposition, the high argumentative individual intends to exert more effort to succeed (win) in an argumentative situation.

The findings of this investigation may have uncovered yet another one of the boundaries of the physical attractiveness variable. It seems apparent from this data that the physical attractiveness factor may not be potent in all interpersonal communication situations. An

argumentative discussion between two persons is a situation in which social conflict operates. Most of the research concerning the effects of physical appearance cues has been conducted on its effect in non-conflict situations, i.e., person perception, helping behavior, courtship, dating, marriage and the development of intimate relationships. It may be that the physical attractiveness variable does not operate in the same manner in social conflict situations as it does in non-conflict situations. Perhaps the physical attractiveness variable operates with most saliency in the non-conflict situation where development and maintenance of interpersonal attraction, or liking, is of primary concern to the participants. In a social conflict situation, interpersonal relationship development and maintenance may take a secondary or even tertiary role. Perhaps the primary motivation to argue, or to resolve conflict in a social conflict situation is focused on the issue, and not on the adversary as an individual. However, in non-conflict situations, emphasis may be focused on the other individual, primarily on the adversaries physical and non-physical attributes.

Perhaps the physical attractiveness of the adversary may have been of concern with regard to changing the tactics employed during the argument, but may not have been salient enough to affect the indices and situational determinants of resultant motivation to argue. This speculation could be tested in future studies where participants would actually engage in argument with attractive or less attractive adversaries.

A plausible expalnation for the inability of the physical attractiveness factor to affect the responses to the argumentative situation may lie in the power of the trait predisposition of argumentativeness to obscure the effect of the physical attractiveness factor. This explanation may be especially appropriate when one considers the impact trait argumentativeness had on influencing seven of the eight responses to the argumentative siutation measured. It is possible that individuals who are located on the extremes of trait argumentativeness (as the subjects in this study were) may be less affected by the physical attractiveness variable during an

interpersonal argumentative conflict situation. Individuals who are high in the trait predisposition may advance a "let me at him/her"feeling for an upcoming argument, bypassing or failing to recognize the influence of physical attractiveness. Individual's low in trait argumentativeness may express an "I don't want any part of this argument" feeling toward the argument and the adversary, again, overwhelming the influence of the physical attractiveness factor.

Perhaps individuals who score within the middle range (moderates) of trait argumentativeness may be most affected by situational factors such as the physical attractiveness of an adversary. The moderate argumentatives approach and avoidance tendencies may be especially sensitive to situational factors such as who they are arguing with, what they are arguing about, or where the argument takes place. This speculation should be examined when future research on how situational factor's influence behaviors and responses to argumentative situations is undertaken.

In this investigation it is also possible that the full realization of the physical attractiveness variable may not have emerged. Stimulus photos of the intended adversary were employed following previous research guidelines of studies manipulating physical attractiveness. Although the manipulation checks for physical attractiveness clearly demonstrated that subjects did differentiate between attractive and less attractive adversaries, the potency of this manipulation may have been weakened by the use of stimulus photos. Situations involving actual face-to-face interaction may so increase the potency of physical attractiveness cues that its' lack of effect in this this investigation may be overwhelmed.

Future Argumentativeness research could take a number of directions. Replication of the current investigation with actual subject - adversary interaction would appear beneficial to our understanding of the construct. Use of both males and females as intended adversaries for the argumentative situation should enhance the generalizability of the current investigation's findings. Examination of the impact of situational factors on moderate argumentatives needs to be conducted. The influence of how other situational and

interpersonal factors impact on resultant motivation to argue and on situational determinants should be investigated. Research is also needed which determines the specific communication behaviors which discriminate among levels of argumentativeness and how those behaviors relate to winning and losing arguments.

TABLE 1

CELL MEANS FOR INDICES OF RESULTANT MOTIVATION TO ARGUE

Condition	A_s	Effort	A_q	Disapp
High Trait Argumentative Attractive Adversary (n=35)	41.65	22.08	3.60	19.61
High Trait Argumentative Unattractive Adversary (n=38)	43.72	23.82	3.77	20.88
Low Trait Argumentative Attractive Adversary (n=40)	37.98	21.11	3.17	15.67
Low Trait Argumentative Unattractive Adversary (n=39)	36.77	20.27	3.09	14.60

Note. The higher the mean, the more favorable the attitude toward the argumentative situation, the greater the intended effort tosucceed in the argument, the greater the intended argument quantity, the greater the disappointment with the cancellation of the argument.

A_s=attitude toward the argumentative situation.

A_q=argument quantity/number of intended arguments.

Effort=intended effort to succeed in the argument.

Disapp=disappointment with the cancellation of the argument.

TABLE 2

CELL MEANS FOR SITUATIONAL DETERMINANTS OF RESULTANT MOTIVATION TO ARGUE

Condition	P_s	I_s	P_f	I_f
High Trait Argumentative Attractive Adversary (n=35)	21.04	19.25	15.24	15.53
High Trait Argumentative Unattractive Adversary (n=38)	21.76	19.33	15.68	18.05
Low Trait Argumentative Attractive Adversary (n=40)	19.46	17.67	16.07	16.05
Low Trait Argumentative Unattractive Adversary (n=39)	18.84	17.03	17.12	13.94

Note. The higher the mean, the greater the perceived probability of success, importance of success, probability of failure, and importance of failure.

P_s = probability of success

I_s = importance of success

P_f = probability of failure

I_f = importance of failure

END NOTES

1. The mean physical attractiveness ratings for the four attractive stimulus photos were 5.89, 5.85, 5.48 and 5.43 respectively. The mean physical attractiveness ratings for the four unattractive stimulus photos were 2.18, 1.65, 1.50 and 1.55 respectively.

2. Additional bogus information on this sheet included adversary's sex (in each case it was female), birthplace (Ohio), age (20), height (5'4"), number of brothers and sisters (one each), major (Education), class standing (Sophomore), intended career goal (high school teacher), and current employment (part-time clerical).

3. Attitude toward the argumentative discussion situation was measured by eight semantic differential-type scales (good-bad, valuable-worthless, stimulating-dull, desirable-undesirable, pleasing-annoying, pleasant-unpleasant, enjoyable-unenjoyable, and, easy-difficult). In order to measure intended argument quantity, subjects were presented with these instructions: For the next 3 minutes, think about the argumentative discussion situation which you will be soon placed in. What desirable consequences will you argue regarding the proposal advocating free tuition for students attending this State's public universities? That is, list all the desirable consequences that you plan to argue which you feel will result if this proposal is adopted. Number each desirable consequence in the space provided below. We will study the relationship between what you intend to say, and what you actually do say in the discussion. Intended effort to succeed was measured by four Likert-type scales. Physical attraction was mesured by employing the five physical attraction items from McCroskey and McCain's (1974) attraction scales. Probability of success was measured by four semantic differrential-type scales (likely-unlikely, probable-improbable, possible-impossible, plausible-implausible) which followed the question: "How likely do you think it is that you will succeed in persuading this other person?" For all semantic differential-type scales used in this study, bi-polar adjectives were counterbalanced to discourage a response set. The same scales were employed to measure probability of failure, and followed the question: "How likely do you think it is that you will fail to persuade this other person?" For the importance of success measure, four semantic differential-type scales (important-unimportant, significant-insignificant, vital-trivial, essential-nonessential) followed the question: "How important will it be to you if you succeed in persuading this other person?" The same four scales were employed to measure importance of failure,and followed the question: "How important will it be to you if you fail to persuade this other person?"

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